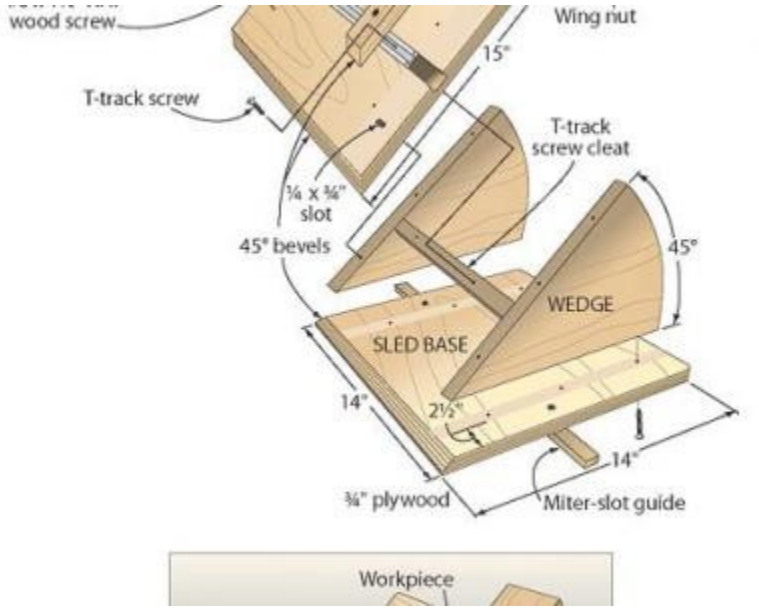
Quick-action Miter Sled

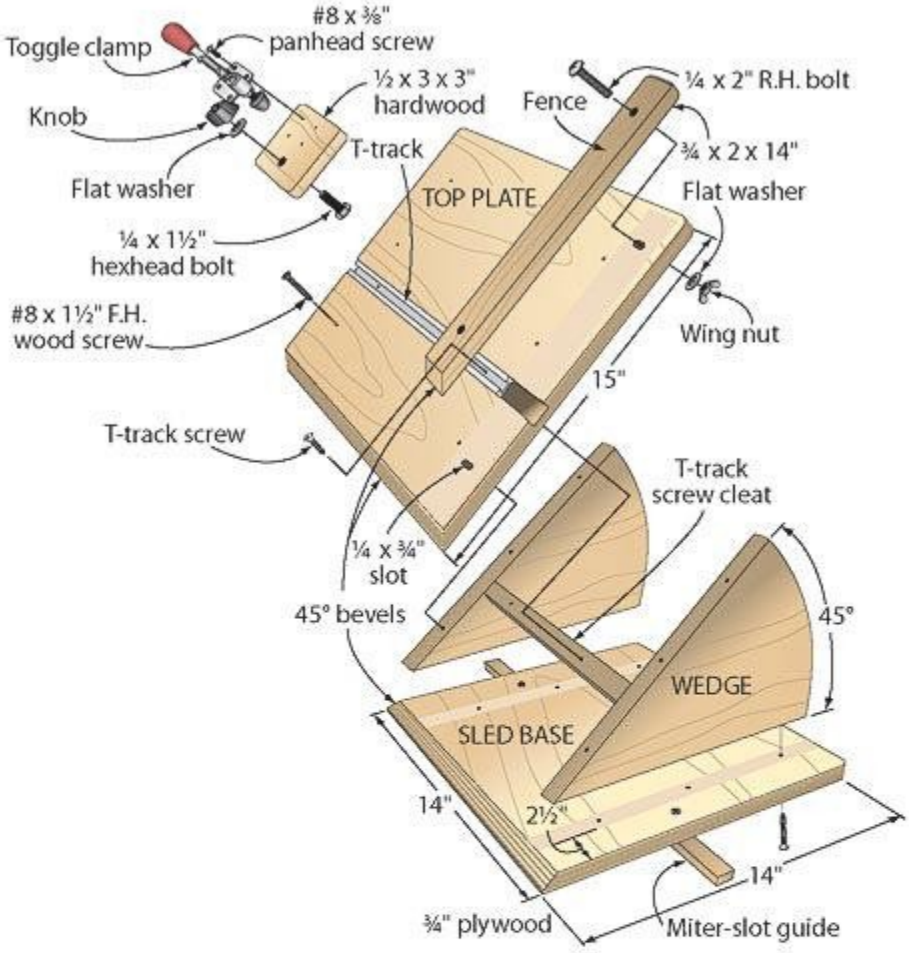
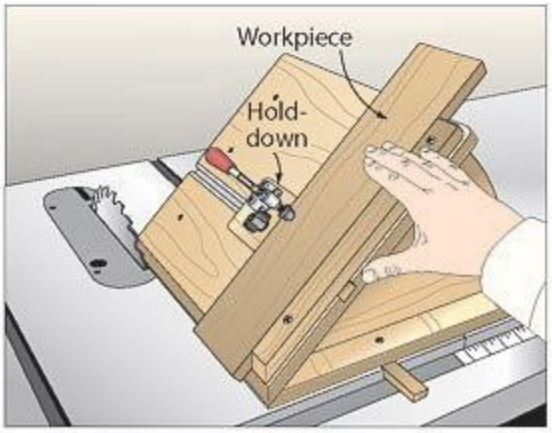


Cut accurate miters without tilting your blade.

When I found myself making a lot of memorial flag cases, I needed a method to cut 45° miters quickly and accurately in wide stock. The sled I came up with (shown in detail below) lets me make miters in no time at all without even tilting my saw blade. And, it does it without causing tear-out on the workpiece.

After cutting the sled base slightly oversize, tilt your saw blade to 45° to cut the bevel on the sled base. With the blade returned to the 90° position, insert the miter-slot guide into your tablesaw's miter slot, position the sled base against the blade body to ensure that it is square, then, fasten the base to the miter-slot guide. Using the bevel of the sled base as a guide, mount the 45° wedges in place.

Cut a groove in the oversize top plate and mount the T-track and T-track screw cleat, as shown. The cleat provides holding power for the T-track screws. Attach the fence to the top plate, ensuring that it is square by using the slots in the top plate for adjustment. Then, attach the top plate to the wedges, sliding it down until the edge touches the tablesaw table. With the blade still set to 90°, cut off the excess.

Finally, assemble and attach the hold-down that will secure the workpiece against the fence and keep it from slipping toward the blade.

Besides extremely accurate miter cuts, the sled has an added benefit. Simply turn the workpiece over and adjust the blade height, and the sled can be used to cut the slots for a splined miter joint.